NOTICES FROM THE LICK OBSERVATORY.

PREPARED BY MEMBERS OF THE STAFF.

THE PHYSICAL OBSERVATORY OF MEUDON (NEAR PARIS).*

The accompanying cut is copied from Lieut. WINTERHALTER'S Report on European Observatories by the kind permission of the Superintendent of the U. S. Naval Observatory (*See* Publ. A. S. P., Vol. III, page 40). The note here given is condensed from the text of Lieut. WINTERHALTER'S Report.

The Observatory was founded in 1875 and is established in the park of Meudon, not far from Paris. It is by no means completed, so far as instruments are concerned, but its present facilities are employed in spectroscopic and photographic observations. Its distinguished Director and his assistants have taken part in many eclipse expeditions to all parts of the world, and M. JANSSEN has prosecuted his spectroscopic observations at all altitudes from the level of the sea, to the tops of the EIFFEL tower, of the Pic du Midi and of Mont Blanc.

The solar photographs of the Meudon Observatory are unrivalled. No description of them need be given here, because members of the society can see a beautiful glass copy of one of them which was presented to the Lick Observatory by M. JANSSEN, in a conspicuous place in the main hall of the Lick Observatory. E. S. H.

THE PROPOSED OBSERVATORY ON MONT BLANC.†

The group of Parisian scientists (writes the Lucerne correspondent of the *London Times*) led by M. JANSSEN, Membre de l'Institut, and including Prince ROLAND BONAPARTE and M. BISCHOFFSHEIM, are making preparations for a second attempt to realize their ambitious scheme of building an observatory on the summit of Mont Blanc. The operations last year, which

* M. JULES JANSSEN, Director.

† See *Publications* A. S. P., Vol. III, page 50.

resulted so disastrously to the workmen engaged, were principally confined to tunnelling through the snow just below the summit, with the object of discovering whether rock existed for a foundation. No such rock was found, and M. JANSSEN has now resolved to build the observatory in the frozen snow which covers the summit of the mountain. With a view to ascertaining whether this surface snow was sufficiently solid for the purpose, and whether any movement or displacement would be likely to occur after the construction of the observatory, a wooden cabin was erected on the proposed site at the end of last summer. This was visited in the month of January, 1892, and again early in the spring, but it was found that no movement whatever had occurred, and that the cabin had sustained no material damage. The promoters are, therefore, encouraged to build the observatory upon a similar foundation, and are convinced that the construction planned will resist all the elements, even at that altitude.

I have been favored with authentic particulars of the plan which it is proposed to pursue in carrying out this bold idea. The building proper for the observatory is now being constructed in Paris, and in another few days it will be brought in sections to Chamounix. The transport of the building from Chamounix to the summit of Mont Blanc and its erection there have been intrusted to the charge of two capable guides. They have already been to Paris in order to make themselves thoroughly acquainted with all the details of the construction. The observatory is to be a wooden building eight metres long and four metres wide, and consisting of two floors, each with two rooms. The lower floor, which is to be embedded in the snow, will be placed at the disposition of climbers and guides, and the uppor floor reserved for the purposes of the observatory. The roof, which is to be almost flat, will be furnished with a balustrade, running round it, together with a cupola for observations. The whole building will rest upon six powerful screw-jacks, so that the equilibrium may be restored if there be any displacement of the snow foundations.

Before the work of transportation from Chamounix to the summit begins two small cabins are to be constructed as resting places for the porters, one at the Grand Mulets, the other at the Roches Rouges. The latter cabin, which is 1000 feet below the summit, will be left standing for the future use of climbers, and, in addition, it is proposed to place there another building, octagon

in form, to be furnished with a cupola, to serve as a supplementary observatory. The promoters hope to be able to build these cabins and, with the exception of the cupola, to complete the observatory on the summit during the course of the present summer. But this necessarily depends upon the weather and upon the men obtainable for the work. Ordinary workmen, unaccustomed to the mountains, are of course useless, and there are many even of the Chamounix guides and porters who are incapable of remaining for any length of time at this great altitude. After the sad and fatal experiences of last year, the greatest care is to be exercised with regard to the health and safety of the men employed, in order to prevent, if possible, the loss of more lives in connection with this undertaking. Last summer, it will be remembered, an avalanche swept two of a caravan into a crevasse as they were returning from the summit, and an affection of the lungs contracted by Dr. JACOTET, who was sent to look after the workmen, caused his death in a few hours. The promoters, therefore, promise to insure at their own cost the lives of the men engaged upon the enterprise; the men are also to be paid 10f. a day, and in addition 3f. for every kilo carried from Chamounix to the summit. This pay is very liberal and very tempting, and it need be so when one considers the risks the men run. The storms and avalanches are terrible enough, but the chills and *mal de montagne* are even more dreaded. Men will, however, doubtless be found when M. JANSSEN arrives in Chamounix, a fortnight hence, to carry out the work.

—From *Edinburgh Scotsman* of 13th June, 1892.

STABILITY OF THE GREAT EQUATORIAL, 1888–1892.

Observations for the positions of the great telescope have been made by Messrs. SCHAEBERLE, KEELER and CAMPBELL, as below:

1888. July 27, azimuth = + 36″ ; level = 8″ too low,
1889. May 18, azimuth = ... ; level = 36″ too low,
Sept. 16, azimuth = + 83″ ; level = 58″ too low,
1890. Aug. 23, azimuth = (+ 54″); level = 114″ too low.

Telescope adjusted—

1891. June 30, azimuth = + ? ; level = 35″ too low.

Holding-down bolts tightened—

1892. Aug. 5, azimuth = + 51″ ; level = 25″ too high.